

8.3.6 Normalized Annual End Uses of Water in Two California High Schools

<u>Fixture/End Use</u>	<u>Range of Water Use</u> <u>(gal/room)</u>	<u>Range of Water Use</u> <u>(gal/person)</u>
Toilet	2.9 - 3.2	206 - 271
Urinal	1.2 - 2.6	106 - 186
Faucet	1.0 - 2.3	87 - 165
Shower	0.5 - 0.7	44 - 47
Kitchen	0.7 - 1.0	58 - 58
Misc. uses (2)	0.9	68
Cooling	-	-
Leaks	1.6 - 3.6	112
Swimming Pool	0.4 - 0.9	31

Total Use	11.1 - 12.3	883
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Average
Building Size (SF)
222326

Logged average
daily use (thousand gal)
9.1 - 16.4

Indoor peak instantaneous
demand (gpm)
41 - 60

<u>Benchmarking Values for Schools (3)</u>	<u>N</u>	<u>25th Percentile of Users</u>
Indoor Use, Gal./sq. ft./year	142	8 - 16
Indoor Use, Gal./school day/student	141	3 - 15
Cooling Use, Gal./sq. ft./year	35	8 - 20

Note(s): 1) Water use data for the buildings was collected over a few days. Estimates of annual use were created by accounting for seasonal use and other variables, billing data, and interviews with building managers. 2) One high school. 3) The study derived efficiency benchmarks by analyzing measured data and audit data. The benchmark was set at the lower 25th percentile of users.

Source(s): American Water Works Association Research Foundation, Commercial and Institutional End Uses of Water, DeOreo, William et. al., 2000.